

REMARKS ON MATSUMURAESES ISSIKI, WITH DESCRIPTIONS OF NEW SPECIES (LEPIDOPTERA, TORTRICIDAE, LASPEYRESIINI)

by

A. DIAKONOFF

Rijksmuseum van Natuurlijke Historie, Leiden

ABSTRACT

Remarks on the value of specific characters in *Matsumuraeses* Issiki are made, four new species from Java and Nepal described and four other species recorded.

Recent studies reveal more and more species that have to be attributed to the present natural genus; these are species either already described, but referred to wrong genera, or new species. Without doubt their number will continue to grow.

The key species is "*Semasia*" *phaseoli* Matsumura, 1900, described originally from Japan; for some time it has escaped attention of European students, so that the number of its synonyms is considerable. Still caution is required with synonymising already described species of *Matsumuraeses*. So Danilevsky & Kuznetsov (1968) pointed out that *M. ochreocervina* (Walsingham) is a distinct species; and I myself am claiming the same for *M. metacritica* (Meyrick).

The important specific characters of the males are the peculiarities of the socii — even more so than the shape of the valva; but especially, the androconial modifications of the dorsum of the hind wings. The females, on the contrary, do not always show specific distinction of the genitalia and are often difficult to separate, the more so, because the colouring and markings of the two sexes may vary to a great extent.

Matsumuraeses belongs to the same group as the large genus *Cryptophebia* Walsingham, with a circumtropical distribution. This group is a specialized off-shoot of the tribe Laspeyresiini. The development of their structures apparently followed the same direction as that in lower Eucosmini or higher Olethreutini. I would prefer to place this group at the very end of the Laspeyresiini and not at the place of the second Palaearctic genus, as in the monograph of Danilevsky & Kuznetsov (1968).

A part of the present material originates from a series of recent collecting expeditions by the Munich Museum (Zoologische Sammlung des Bayerischen Staates), Germany, to Nepal. This material is exceedingly rich and is in excellent condition. I am greatly indebted to that Museum, especially to Dr. W. Dierl, for entrusting me with the study of this material and for the permission to retain certain duplicates for the Leiden Museum collection.

Matsumuraeses elpisma spec. nov.

(Pl. 1 fig. 1—2, Pl. 4 fig. 1—2)

♂ 14 mm. Head pale fuscous; a small transverse crest on forehead. Palpus greyish-fuscous, with a pale base, median segment broadly triangular, terminal segment very short, exposed. Thorax pale fuscous. Abdomen pale fuscous-grey.

Fore wing oblong, costa straight, a trifle concave in middle, apex prominent, sub-obtuse, termen sinuate above, rounded beneath, moderately oblique. Pale ochreous-fuscous, with a weak transverse striation (tips of scales darker), faintly suffused with greyish towards costa and basal third of dorsum. Faint purplish marbling over dorsal suffusion and sparse dotting along costa, with an indication of an oblique, dark transverse line before 1/6 (edge of basal patch); basal 4/5 of costa suffused with greyish, this suffusion dilated into a rather faint costal spot, oblong-oval, from 1/2 to 4/5; dark purple dots on closing vein: a pair in right, a single, in left wing; sparse irregular purple points, tending to form short, horizontal strigulae between veins on termen. Cilia whitish-fuscous, with indication of purple bars opposite terminal point.

Hind wing rather light fuscous, glossy, with less than basal half pale grey; a deeper fuscous streak above and parallel to vein 1b. Cilia fuscous-whitish, dorsum normal.

Male paratype darker, finely spotted, and costa throughout transversely strigulated with ferruginous, terminal fifth rather suffused with dark grey, discal dark points absent. Otherwise similar to holotype.

♀ 12.5 mm. Similar to the holotype, but costa not darker suffused, disc moderately suffused with fuscous-brownish from dorsum beyond base to costa, becoming darker posteriorly.

Hind wing darker infuscated, with a darker apex and veins (except upper edge of cell, closing vein and basal half of vein 1b). Cilia whitish, with a slender fuscous sub-basal band, not reaching tornus.

Male genitalia. Tegumen moderate, rather spherical, not narrowed along upper half, except towards apex. Socius, a minute, rounded and conical process, short-bristled over outer side. Tuba analis membranous, moderately broad, gently narrowed, only extreme base darker. Valva long, sacculus oval, neck moderate, cucullus broadly semicircular. Aedeagus long, slender, curved, broadest at base, gradually narrowed. Cornuti, a sheaf of long, slender spines.

Female genitalia. Sterigma simple, not modified. Ostium, a semiovoid cup, open above, moderately sclerotized. Lamella postvaginalis with two ear-like, small, minutely bristled patches. Ductus bursae narrow, colliculum, a small, weak cylindre. Cestum, a slender tube. Signa, moderate horns. Eighth sternite with a triangular sclerite in middle of posterior edge.

East Java, Tengger Range, Tosari, 1770 m, bred from leaves of *Crotalaria* (Papilionaceae), 26.II.1940, 1 ♂, holotype, genit. slide 8731; 24.II.1940, 1 ♂, paratype; 14.II.1940, 1 ♀, allotype, genit. slide 8732 (A. Diakonoff). The same range, Nongkodjadar, 1300 m, at light, 1 ♀, 20.III.1940, genit. slide 8737; 1.IV.1940, 1 ♀, genit. slide 8736; 1 ♀, 6.IV.1940; 1 ♀, 31.I.1941 (A. M. R. Wegner). Apparently belongs to the Far Eastern *M. monstruosana* V. Kuznetsov group of species, but is distinct by the genitalia, especially the characteristic socii.

Matsumuraes felix spec. nov.

(Pl. 2, Pl. 3)

♂ 14.5 mm. Head light tawny-brownish with a faint purplish tinge. Palpus laterally with smoothly appressed scales; light tawny, median segment triangularly dilated, top darker brown, terminal segment concealed, pale tawny. Thorax tawny-brown, apical third and tips of tegulae strewn with purple, tip of thorax blackish-purple. Abdomen pale ochreous.

Fore wing moderately broad, oblong, truncate, costa moderately curved throughout, apex obtusely pointed, almost rectangular, termen sinuate above, rounded below, vertical. Pale ochreous-tawny, markings dark purple. Basal patch to less than $1/4$, edge formed by a series of closely set dots, angulate above middle, gently concave above and below angulation; this patch filled out by fine purplish dusting; central third of costa with three slender oblique lines not reaching cell, about equidistant, alternating with minute points; a conspicuous, dark purple spot under $2/3$ of costa, formed by two parallel, short longitudinal streaks, interconnected by slight dusting, upper streak slightly continued on both ends above by slender lines; sparse marbling on second fifth of dorsum, connected with lower half of basal patch, strongly angulate posteriorly and extending along dorsum by sparse transverse dotting; a spot of faint dusting halfway between subcostal dark spot and termen; some three irregular vertical series of dots before and parallel to termen and a darker, spindle-shaped subterminal mark below apex, all these alternating with similar, very faint lines. Cilia pale tawny-fulvous, on dorsum becoming grey, basal fourth deep purple, becoming darker towards apex, paler on dorsum.

Hind wing fuscous-bronze, posterior half dark grey in certain lights, basal third pale grey, becoming whitish at base. Cilia light fuscous-grey, with a darker subbasal band and a whitish basal line; cilia along dorsum slightly lengthened, otherwise normal.

Male genitalia. Tegumen high, upper half narrowed. Socius, a small, obliquely rising oblong-oval plate, sparsely short-bristled, dilated tops slightly overlapping. Tuba analis wide, flat and narrowed above, with narrow edges sclerotized. Valva long, sacculus rhomboidal, lower angle at top projecting, pointed, lower edge moderately bristled; neck of valva narrow, cucullus broad, almost semicircular, top curved, projecting and rising. Aedeagus long, slender, strongly curved beyond base, gently dilated towards apical $1/3$. (Cornuti missing.)

East Java, northwestern slope of Mt. Ardjoeno, Tretes, 900 m, bred from leaves of *Litsea* (Lauraceae), 24.III.1940 (A. Diakonoff), 1 ♂, holotype, genit. slide 8730. Probably related to *M. monstrosana* V. Kuznetsov, from the Maritime District, Siberia, and less closely, to *M. melanaula* (Meyrick), from India and Assam — now also recorded from Nepal.

Matsumuraes phaseoli (Matsumura)

Semasia phaseoli Matsumura, July, 1900: 197 (♂ ♀). — 1901: 23. — Yasuda, 1956: 16.

Semasia elutana Kennel, August, 1900: 147, fig. 23. — 1916: 513, pl. 19 fig. 86.

Eucosma trophiodes Meyrick, 1908: 613 (♂ ♀). — Clarke, 1955: 319.

Argyroploce trophiodes: Janse, 1917: 175. — Caradja, 1939: 12.

Thiodia azukivora Matsumura, 1931: 1076, fig. — Obratzsov, 1952: 148.

Lathronympha phaseoli: Issiki in Esaki, 1950: 480, fig. — Matsumura, 1953: 1, 2, 12, pl. 1 fig. 1; pl. 3 fig. 5, pl. 4 fig. 2. — Inoue, 1954: 95, no. 509. — Yasuda, 1956: 15, 17, figs. 1—4.

Semasia azukivora: Yasuda, 1956: 15, 16.



Figs 1—2. Male genitalia of *Matsumuraes* species, holotypes. 1, *M. xantholoba* sp. n.; 2, *M. tetramorpha* sp. n.

Matsumuraes phaseoli: Issiki in Esaki, 1957: 57, pl. 8 figs. 257, 258. — Okano, 1959: 260, pl. 174 fig. 20. — Obratsov, 1960: 134, figs. 86—91. — 1967: 32. — Danilevski & Kuznetsov, 1968: 237, figs. 127, 128, 131 (*elutana* Kenn., *azukivora* Mats., *trophiodes* Meyr., *metacritica* Meyr. synonyms).

Matsumuraes (Semasia) elutana: Kuznetsov, 1962: 346, fig. 7.

Olethreutes trophiodes: Clarke, 1958: 559, pl. 278, figs. 1—1a (lectotype designated, wings, genitalia figured).

The present synonymy might be neither correct nor complete, owing to the wrongly identified older material. Close future study and field observations, especially in Japan, will reveal the actual identity of this and allied Japanese species.

The species is of moderate size, 17—18 mm, and with considerably varying colouring and markings, but usually pale ochreous, with a suffused dark fuscous streak along middle of costa and a darker grey suffusion along dorsum, dilated into an irregular patch at 1/3, sometimes also with a suffused discal stigma. The female usually is greyish-ochreous, with fine longitudinal pattern of thin lines more or less developed, sometimes with a diversely developed dark terminal shade.

Hind wing in male pale ochreous, partly subhyaline, hyaline at base, with prismatic reflections, with dark fuscous, narrow marginal suffusion from costa to tornus, veins dark fuscous posteriorly; dorsum much thickened by closely appressed, modified and short scales, white, mixed with sparse jet-black scales and with long, pale ochreous-fuscous hairs.

The male genitalia with moderately long, joined socii, with long, sideways-directed hairs, parted in middle; neck of valva less narrow than in other species, cucullus triangular and rather pointed, cornuti rather long and slender.

West Java, Tjipanas, 1100 m, 1—10.X.1948 (A. Diakonoff), 1 ♂, genit. slide 8733. Buitenzorg, 250 m, bred from leaves of *Tephrosia vogelii* (Papilionaceae), 1 ♂. — Mt. Gede-Pangrango, Tjibodas, 1400 m, IV.1949 (A. M. Neervoort), 1 ♂, genit. slide 8734, 2 ♂ without abdomens. The same, IV—VI and XII.1949 (A. M. Neervoort), 33 ♀, genit. slide 8735. — Lembang, 1100 m, 20.VIII.1922, 1 ♂, bred from leaves of "kedele" (*Glycyne* Max).

East Java, Tengger Range, Nongkodjadar, 1400 m, 8, 11, 24.III.1940, 20.XII.1940 (A. M. R. Wegner), 4 ♀, genit. slide 8738.

Matsumuraes xantholoba spec. nov.

(Fig. 1)

♂ 15—19 mm. Head purplish-fuscous. Palpus long, ascending close to face and exceeding vertex; median segment triangularly dilated by roughish scales above and beneath; terminal segment slender, smooth, pointed and exposed; greyish-fuscous, spotted in middle and on apex with purplish, terminal segment purple. Thorax rather dark grey-purple, tegulae light fulvous. Abdomen pale yellow, valva whitish, venter mixed with grey.

Fore wing oblong-triangular, costa little curved, more so anteriorly, apex produced, obtusely pointed, termen strongly sinuate, little oblique. Whitish. Basal patch from 1/5 of costa to before middle of dorsum, edge with a round prominence below fold; this patch dark grey-olive, edged and dotted with purplish, lower half entirely deep purple, posterior edge and its prominence ferruginous; basal 3/4 of costa suffused with grey, transversely strigulated and dotted with purple strigulae, oblique and rather irregular;

posterior half of costa with four oblong purple spots, first median, connected with the horizontal subcostal streak, three following costal spots becoming smaller posteriorly; a round purplish spot on middle of closing vein, an irregular group of paler, suffused spots, greyish and fulvous, below this, not quite reaching dorsum; a band of glossy grey and olive suffusion along edge of wing from below apex to end of dorsum, with minute purplish points between veins and three similar larger marks above tornus. Cilia deep purple, more or less suffused with black and ferruginous, with a white basal band.

Hind wing grey-whitish, posterior half strongly infuscated from below costa, which is white, to vein 5 and in a suffused band along upper half of termen, veins 3-5 dark fuscous, cells between them thinner scaled, below these veins scaling glossy and more opaque, vein 1b dusted with black scales, sparsely strewn above this vein; dorsum forming an extended lobe, densely covered with thick, round, thin-stalked scales, from whitish below vein 1b, turning rather bright yellow towards dorsal edge; under side of lobe with smooth and granulate, whitish-ochreous surface. Cilia fuscous with a white base and darker grey-fuscous subbasal band.

Male genitalia. Resembling those of *M. phaseoli*, but with *socii* twice as long; valva with a narrower neck, triangularly dilated base of sacculus larger, as well as the group of bristly hairs in its centre; colliculum with more prominent and less obtuse angles.

Nepal, Prov. No. 3 East, Jubing, 1600 m, 9.V.1964, 1 ♂, holotype, genit. slide 8569; the same locality, 6.V. and 11.V.1964, 2 ♂, genit. slide 8571 (W. Dierl), paratypes. Superficially resembling *M. phaseoli* and also *M. ochrocervina* rather closely, but with the very characteristic yellowish dorsal lobe of the hind wing.

Matsumuraeses metacritica (Meyrick)

(Fig. 4)

Encosma metacritica Meyrick, 1922: 515 (♂). — 1935, in Caradja & Meyrick: 35. — Clarke, 1955: 204. — Viette, 1957: 151.

Allohermenias metacritica: Razowski, 1960: 385 (lectotype designated and genitalia ♂ figured).

Matsumuraeses metacritica: Danilevski & Kuznetsov, 1968: 237 (syn. of *phaseoli* Mats.).

Distribution. S. China: Shanghai.

Nepal, Prov. Nr. 2 East, Jiri, 2000 m, 2.IV.1964 (W. Dierl), 1 ♂, genit. slide 8570.

It is a surprise to encounter this Southern Chinese species at an altitude of 2000 meters; however, there is no question about the identity of the single specimen available: although somewhat rubbed, the fore wing has retained most features, while the hind wing which is even more characteristic, is completely intact.

The terse original description of the male hind wing may be elaborated as follows. Light grey, thinly scaled, with slight prismatic reflections; a moderate fuscous-grey suffusion along posterior third of upper half, more or less becoming darker in apex; veins distinctly but narrowly streaked with fuscous, except lower edge of cell from beyond base to angle and veins 2 and 3 throughout, which are dilated by blackish-fuscous dusting; dorsum corrugated, forming a fold above vein 1b, another below this vein, with a compressed fold between these, densely covered throughout on the upper side with closely appressed fuscous-grey hair-scales, cilia from end of vein 3 to tornus similarly infuscated, cilia along dorsum dense, elongate and whitish; a long pecten of fine pale grey hairs along first fold, a less extended but longer second pencil of similar hairs along base of second fold, extending on cell 1a and dorsum. Underside only with



Plate 1. *Matsumuraeses elpisma* sp. n., holotype. Fig. 1. Male genitalia. Fig. 2. Coremata; left posterior corema in place, right corema pushed outwards (caudad)



Plate 2. *Matsumuraeses felix* sp. n., male genitalia, holotype



Plate 3. *Matsumuraes felix* sp. n., holotype, corenata

A. DIAKONOFF: Remarks on *Matsumuraes*



Plate 4. *Matsumuraeetes elpisma* sp. n., ♀ allotype. Fig. 1. Genitalia. Fig. 2. Bursa copulatrix
A. DIAKONOFF: Remarks on *Matsumuraeetes*



Plate 5. *Matsumuraesia tetramorpha* sp. n., allotype, genitalia. Fig. 1. Sterigma. Fig. 2. Corpus bursae and signum
A. DIAKONOFF: *Remarks on Matsumuraes*

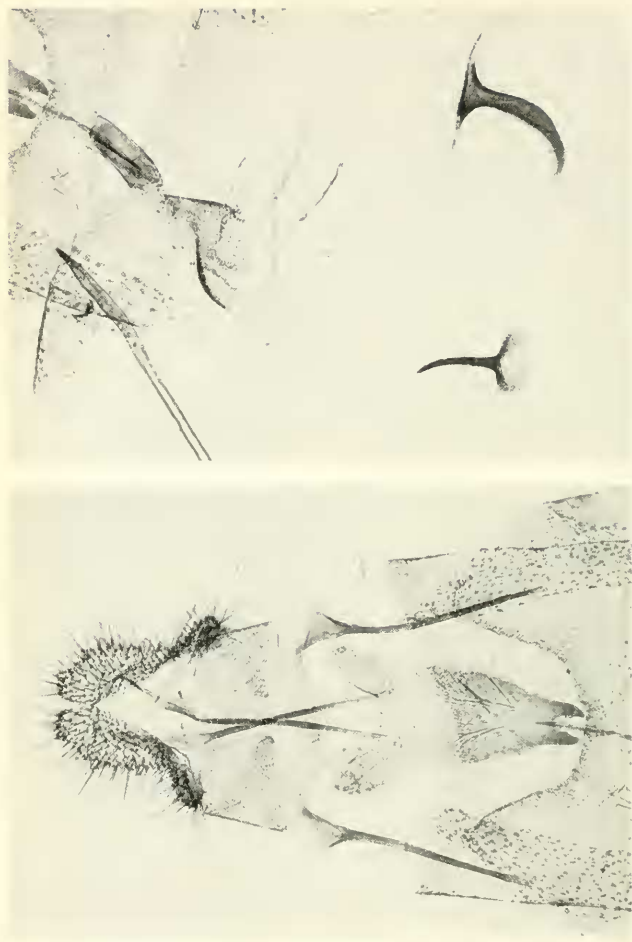


Plate 6. *Matsumuraeetes ochrocerina* (Wals.), ♀ genitalia slide 8574. Fig. 1. Ovipositor and sterigma. Fig. 2. Bursa copulatrix

A. DIAKONOFF: *Remarks on Matsumuraeetes*